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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,145	07/14/2006	Minoru Fujimoto	P1360US	4195

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EXAMINER	
MEHTA, HONG T	

ART UNIT	PAPER NUMBER
1784	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,145	FUJIMOTO, MINORU	
	Examiner	Art Unit	
	HONG MEHTA	1784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (FTO/SB/08) Paper No(s)/Mail Date *July 14, 2006, June 16, 2009 and November 20, 2009*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to application 10/586,145 filed on July 14, 2006. Claims 1-16 are under examination. Clams 1, 2 and 10 are independent claims.

Information Disclosure Statement

1. The information disclosure statement filed July 14, 2006 and June 16, 2009 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because **Document 49-109563 and JP-3054251** are not in English language. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 3 recites the limitation "the penetration step" in line 3. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 4 recites the limitation "the depressurization step" in line 3-4. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 5 recites the limitation "the penetration step" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Musher (US 2,278,473).**

9. **Regarding claims 1, 2, 5, 9, 10 and 16**, Musher disclose a method for processing coffee beans (liquid-holdable material substance) in a closed chamber (processing vessel/processor) subjected to elevated pressure ranges (pg. 1, col. 2, lines 39-50) with saturated/superheated steam (liquid having vaporizability) (pg. 2, col. 1, lines 18-25) and open to low pressure exposure which result in coffee bean's cell structure to expand and become relatively more porous (pg. 2, col. 1, line 5-17) to allow air, moisture, steam, or various solvents or other materials to be more readily penetrate within the structure of expanded coffee beans.

10. With respect to claims 10 and 11, Musher discloses closed chamber (processor) with varying elevated pressure and temperature ranges (pg. 1, lines 39-55; pg. 3, line 45-58) with adequate equipment. Furthermore, Musher discloses characteristics such

as size and porosity of coffee beans may be controlled by varying the factors such as temperature, time and pressure of the expansion treatment to which the coffee bean are subjected to during the treatment (pg. 4, col. 1, lines 7-13). Since Musher teaches varying controls in factors such as temperatures and pressures, it is expected the closed chamber has temperature and pressure adjusting portions to control pressures and temperatures degrees to heating or cooling.

11. **Regarding claim 3**, Musher discloses superheated steam which is considered to be heated within the chamber (pg. 2, col. 1, lines 18-25).

12. **Regarding claim 4, 12 and 13**, Musher discloses that the chamber is rotated during the process, which is expected to move the coffee beans in the chamber causing vibration (pg. 2, col. 1, lines 2-4).

13. **Regarding claim 6**, Musher discloses multiple explosion treatment of coffee beans with lower pressures in chamber treatment may be repeated one or more times (pg. 3, col. 2, lines 45-58).

14. **Regarding claim 7, 14 and 15**, Musher discloses various flavoring materials such as liquid, fruit or vegetable juices (post-processing fluid) may be admitted in the chamber so as to become impregnated within the expanded coffee beans during the treatment (pg. 2, col. 1, line 38-45).

15. **Regarding claim 8**, Musher discloses cooling of the roasted coffee beans with air, carbon dioxide or other inert gas in a cooling process (col. 2, col. 2, lines 44-53). Musher teaches a cooling step therefore the flavoring materials are expected to be cooled and solidified within the expanded coffee beans.

16. **Claims 1-6, 9-13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ben-Nasr et al. (US 5,338,575)**.

17. **Regarding claims 1, 2, 5, 9 and 16**, Ben-Nasr et al. disclose the process of decaffeinating raw coffee (liquid holdable substance) by means of a liquid solvent that is saturated with carbon dioxide (fluid in a super-critical state) and exposed to reduced pressure to expand raw coffee beans (col. 2, lines 16-25; col. 3, lines 12-21) to extract caffeine (col. 2, 42-46). Ben-Nasr et al. disclose the treatment of saturating carbon dioxide and reduced pressure exposure lead to an expanded raw coffee bean which is considered to be more porous than unprocessed raw coffee beans (col. 6, Claim 1, lines 7-27).

18. With respect to claim 2, Ben-Nasr et al. discloses placing coffee beans in a pressure vessel (processing vessel) (col. 5, lines 38-68).

19. **Regarding claim 3**, Ben-Nasr et al. discloses raw coffee beans (liquid holdable substance) is exposed to temperature of 65°C to 90°C (149°F to 194°F) which is considered to be heated when raw coffee beans are supersaturated with carbon dioxide (col. 3, lines 12-21) and under reduced pressure (impregnating step).

20. **Regarding claim 4, 12, and 13**, Ben-Nasr et al. discloses raw coffee beans in the cascading connected pressure vessels (col. 3, lines 63-68; col. 4, lines 1-24) wherein the reduction of pressure will occur, therefore it is expected that the raw coffee beans will vibrate due to the removal action depressurizing within the vessel.

21. **Regarding claim 6**, Ben-Nasr et al. discloses steps of reducing pressure with coffee beans are repeated (col. 6, Claim 2, lines 38-39).

22. **Regarding claim 10 and 11**, Ben-Nasr et al. discloses placing coffee beans in a pressure vessel (processor) (col. 5, lines 38-68) with operating controls on temperatures and pressures to be introduced into the pressure vessels (col. 4, lines 30-39). Since Ben-Nasr et al. teaches operating controls in factors such as temperatures and pressures, it is expected the vessel has pressure and temperature adjusting portions to control pressures and temperatures degrees for heating or cooling.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

24. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

25. **Claims 7, 8, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Nasr et al. (US 5,338,575) as applied to claim and 1 and 6 above, and further in view of Musher (US 2,278,473)**.

26. **Regarding claim 7, 14 and 15**, Ben-Nasr et al. discloses the claimed invention as discussed above. Ben-Nasr et al. does not disclose adding posting-processing fluid to the expanded raw coffee bean.

27. However, Musher disclose a method for processing coffee beans (liquid-holdable material substance) in a closed chamber (processing vessel/processor) subjected to elevated pressure ranges (pg. 1, col. 2, lines 39-50) with saturated/superheated steam (liquid having vaporizability) (pg. 2, col. 1, lines 18-25) and open to low pressure exposure which causes the coffee bean's cell structure to expand and become relatively more porous (pg. 2, col. 1, line 5-17) to allow air, moisture, steam, or various solvents or other materials to be more readily penetrate within the structure of expanded coffee beans.

28. Musher discloses various flavoring materials such as liquid, fruit or vegetable juices (post-processing fluid) may be admitted in the chamber so as to become impregnated within the expanded coffee beans during the treatment (pg. 2, col. 1, line 38-45). It would have been obvious to one of ordinary skill in the art to use Musher's flavoring materials such as liquid, fruit or vegetable juices (post-processing fluid) in Ben-Nasr's coffee bean processing because Musher teaches adding flavoring materials to expanded coffee beans are known and successful.

29. **Regarding claim 8**, Musher discloses cooling of the roasted coffee beans with air, carbon dioxide or other inert gas in cooling process (col. 2, col. 2, lines 44-53). Musher teaches a cooling step therefore the flavoring materials are expected to be cooled and solidified within the expanded coffee beans.

Conclusion

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG MEHTA whose telephone number is (571)270-7093. The examiner can normally be reached on Monday thru Thursday, from 7:30 am to 4:30 pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Htm

/Jennifer C. McNeil/
Supervisory Patent Examiner, Art Unit 1784